STATE OF MAINE
PUBLIC UTILITIES COMMISSION

Docket No. 2001-284

October 19, 2001

PUBLIC UTILITIES COMMISSION
Utility Service Area and Infrastructure Maps (Chapter 140)

ORDER ADOPTING RULE AND STATEMENT OF FACTUAL AND POLICY BASIS

WELCH, Chairman; NUGENT and DIAMOND, Commissioners

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I. SUMMARY

In this Order we adopt a Rule that requires and governs the filing of service area and infrastructure maps and related data with the Commission by certain public utilities operating in the State.

II. BACKGROUND

The Commission has a statutory interest in the authorized service area boundaries of public utilities and in the location of their facilities within the State. Title 35-A, for example, requires the Commission to determine where a utility may serve and locate its facilities. For years, the Commission has required some utilities to file information about their operations in map form. For example, the Commission approves service area exchange boundaries for local telephone utilities as established by exchange boundary maps filed as part of those utilities' terms and conditions, and we review infrastructure expansion plans filed by water utilities (as required by 35-A M.R.S.A. § 6102).

In addressing applications by utilities for authorization to serve or change service territories pursuant to 35-A M.R.S.A. §§ 2102 and 2105, we have encouraged utilities to file proposed service area maps to support the Commission's consideration of the request. See *Contel of Maine, Inc., Proposed Maps to Provide for Boundary Changes Between Contel and Bryant Pond Telephone Company*, Docket No. 90-083; *Bryant Pond Telephone Company, Proposed Boundary Changes Agreed Upon with Contel of Maine*, Docket No. 90-115; Order Approving Changes in Service Territory Pursuant to 35-A M.R.S.A. §§ 2102, 2105 and 1321 (Oct. 25, 1990) at 2. See also *Public Utilities Commission, Investigation of Authority of Madison Electric Works Pursuant to Section 1303 to Provide Service to Certain Portions of Madison, Anson, Starks and Norridgewock Without Approval Pursuant to Sections 2102 and 2105*, Docket No. 94-379, Order (Aug. 4, 1995) at 41.

After the January 1998 ice storm, we recognized the benefit of geographic information systems (GIS) in planning, and mitigation, outage and restoration management. We determined that we would expand the Commission's own GIS capabilities, as well as "develop and maintain a GIS database of utility infrastructure and service information" to support emergency management as well as the Commission's own analysis needs. See *Public Utilities Commission, Inquiry into the Response by Public Utilities in Maine to the January 1998 Ice Storm*, Docket No. 98-026, Order (Dec. 29, 1998) at 46. Some utilities are already developing this information for similar and other purposes.[1]

[1] For example, Maine's Dig Safe statute (23 M.R.S.A. § 3360) requires gas utilities to file infrastructure information with state, county, and local emergency management organizations.

GIS is an important technical resource, and the development of an Enterprise GIS on a statewide basis is a current State priority, as we discuss in further detail below. As GIS datasets become more widely available, we will be able to provide information to, and work with, utilities and other state agencies to enhance preparation for, response to, and recovery from system disruptions.

Finally, one of the enormous strengths of GIS is that, in some ways like the Internet, it builds upon itself; once accurate data are gathered and incorporated, it can be used and correlated with other data indefinitely. Put another way, the more the system is expanded and used, the more valuable it will become to all who use it.

We have recently observed some utilities develop GIS arrangements that appear to enhance those utilities' technical management capabilities and their effectiveness in identifying and responding to service-delivery problems. We envision a long-term goal whereby the Commission can maintain all records and utility information in electronic form, to streamline our regulatory process and to improve the efficiency of our oversight of public utilities in Maine. We believe that GIS is a very useful device that can help us move toward that goal.

We encourage all utilities to consider any such tools that can improve the safety and adequacy of their services and facilities. Utilities should evaluate their own approaches to develop such capabilities as GIS to fit their own circumstances. Some utilities may benefit from developing comprehensive integrated automated mapping, facilities management, and GIS systems (AM/FM/GIS) and related outage management systems, while others may find that much more modest GIS capabilities are more appropriate to their needs. Some utilities may find that it will be to their benefit to build their own extensive in-house capabilities, and others may choose to make service arrangements with other utilities or third parties. Filing of utility data with the Commission would *de facto* offer utilities an offsite backup repository as an additional benefit, although this benefit should not be construed as relieving utilities of the need to maintain adequate backup of their own data.

One objective of this Rule is to establish general directions and parameters that can assist utilities to further develop their capabilities in a consistent manner. Absent a Commission standard to collect both service area and infrastructure information from utilities, it would be difficult, and in some cases impossible, to compare data from different utilities. We thus adopt a Rule that will provide a uniform filing requirement for all utilities covered by the Rule, both for service area and for infrastructure data. Because those two types of data differ significantly in their nature, our Rule contains different provisions for each type.

The Commission must ensure that every public utility furnishes "safe, reasonable and adequate facilities and service." 35-A M.R.S.A. § 301(1). We thus adopt this Rule to enhance the ability of utilities to satisfy § 301(1) and of the Commission to review the safety, reasonableness, and adequacy of utility facilities and service, to respond to the

most frequent requests for service area information received by the Commission, and to facilitate our support of emergency management planning activities.

III. RULEMAKING PROCESS

On May 3, 2001, we issued for comment a Notice of Rulemaking incorporating a Proposed Rule and preliminary draft technical specifications to accompany the Rule. The Secretary of State published notice of the Proposed Rule on May 16, 2001.

We conducted a public hearing on the proposed Rule on June 7, 2001, at which comments were provided by representatives of the following organizations: Office of Geographic Information Systems, Bureau of Information Services, Maine Department of Administrative and Financial Services (MEGIS); Northern Utilities (NU); Maine Natural Gas Corporation (MNG); Augusta Water District (AWD); J.W. Sewell Company (Sewell); Portland Water District (PWD); Bangor Water District (BWD); Maine Water Utilities Association (MWUA); and Telephone Association of Maine (TAM).

The following filed written comments by the comment deadline of June 21, 2001: Bangor Gas Company (Bangor Gas); Bangor Hydro-Electric Company (BHE); Biddeford & Saco Water Co. (B&S Water); Central Maine Power Company (CMP); Community Service Telephone Company (CommTel); CTC Communications Corp. (CTC); MNG; Maine Public Service Company (MPS); Sanford Water District (SWD); TAM; and Verizon Maine (Verizon). BWD subsequently filed written comments.

We discuss below these comments and any changes we make to the Proposed Rule in response to those comments.

IV. DISCUSSION OF RULE AND COMMENTS

A. Section I: General Provisions

1. Applicability

The Proposed Rule would have applied to gas utilities, electric transmission and distribution (T&D) utilities, water utilities that serve more than 5,000 customer accounts in Maine, incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs) that the Commission has designated as eligible telecommunications carriers (ETCs) pursuant to the Telecommunications Act of 1996, and interexchange carriers (IXCs) with facilities in Maine.

In hearing testimony, PWD questioned why we proposed to limit the applicability of the Rule only to larger water utilities. On the same issue, MWUA commented that statewide GIS developments "might want to include all the water utilities in the state," and stated that "it is often the rural communities" that are affected during emergencies. We initially proposed to apply the Rule to larger water utilities that are more likely to have computerized mapping capabilities in place, an understanding

reinforced by AWD's testimony at the Hearing. Our intent in the Proposed Rule was to exempt smaller water utilities from making automatic filings to minimize unnecessary burdens on those utilities, but to place them on notice that we intend to "request similar information from those utilities separately in the event that we need it."

We recognize that smaller utilities that do not currently have in-house or contracted mapping capabilities may need time to develop those capabilities, so that our proposal to "request similar information from those utilities separately in the event that we need it" may itself result in a burden by not providing smaller utilities with notice that will enable them to develop systems to respond to such requests. To respond to comments and the above concern, we thus adopt in §§ 2(G) and 3(F) of the Rule a phase-in of the requirements for all water utilities to provide significant advance notice that such filings will be required in the future, and have set specific initial implementation dates that for our smallest water utilities do not require the initial filings of some information until the year 2018. We discuss this approach in more detail in Part IV(A)(7) below.

2. Definitions

In our Notice of Rulemaking, we solicited comments on how we should distinguish electric transmission and distribution utility (T&D) transmission facilities from distribution facilities for the purposes of this Rule, whether we should establish a uniform standard, and if so what that standard should be. CMP suggested we use FERC definitions from 18 CFR § 101, Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act. The definitions in the FERC rule suggested by CMP are general in nature and do not provide the definitive guidance needed for our purposes here. MPS suggested we follow the seven-part test to define distribution facilities incorporated in FERC Order 888. *See Federal Energy Regulatory Commission Order No. 888, 75 FERC ¶ 61,080* (Apr. 24, 1996) at 230. BHE commented that this test is appropriate and has already been acknowledged by the Commission in our investigation into the retail jurisdiction over transmission services in Docket No. 99-185, our Investigation of Retail Electric Transmission Services and Jurisdictional Issue. We agree with BHE and MPS and incorporate in Section 1(B)(1) of the Rule the seven-part test from FERC Order 888.

The Proposed Rule required telephone utilities to identify the circuit capacity of key infrastructure as determined by the number of voice-grade-equivalent circuits, a criterion we recognize as likely to change over time. The Notice of Rulemaking solicited comments on alternatives to categorize circuit capacities. TAM suggested we categorize capacity "in very general terms" such as low/medium/high based on the line capacity, with the medium category being 1.5 Mbps to 45 Mbps.[2] Verizon stated that using voice grade equivalents "is overly burdensome to develop and keep current," but suggested no alternatives. We agree with TAM's suggestion and reflect such categories in § 1(B)(3)(d) of the Rule. We recognize that keeping data

[2] Mbps = megabits per second

current may in some circumstances be a burden as Verizon suggests. Accordingly, we minimize the amount of updating required by adopting the broad categories suggested by TAM, and relax the frequency of updates required by the Proposed Rule, as discussed further in Part IV(C)(6) below.

3. Technical Specifications

We solicited comment on a preliminary set of technical specifications for both paper copy and electronic maps attached to the Proposed Rule, and asked for comments on whether any portion of the proposed specifications should be incorporated directly into the Rule, rather than established separately by the Director of Technical Analysis as the Proposed Rule provides. CMP and CTC supported delegation of specifications to the Director of Technical Analysis, and CMP suggested the Rule require the Director to consult with utilities before issuing new specifications. MNG suggested that technical specifications should be incorporated into the Rule, but acknowledged in its testimony that some detailed specifications (e.g., the size of computer disks to be used) should be established separately by the Director of Technical Analysis. MNG stated its desire for the opportunity for input to changes in those specifications, but not necessarily through a formal rulemaking process. Bangor Gas and TAM suggested that all specifications should be set in the Rule. BHE recommends we allow filing of electronic copy maps "by e-mail or an FTP site."

We understand concerns expressed by some utilities that the Director of Technical Analysis could hypothetically issue specifications that would impose severe burdens on utilities, but we must balance that concern with the need for administrative expediency with respect to minor technical details such as diskette size. Accordingly, we have moved the most significant specifications into the Rule itself, while leaving less important details in the specifications to be issued by the Director of Technical Analysis.

We note CMP's suggestion about consultation with utilities about specification changes. Further, some comments raise concerns that the Commission may impose criteria that are duplicative or potentially in conflict with requirements of other State agencies. To avoid creating unnecessary burdens on utilities, the Rule will require in § 1(E) the Director to consult with the Maine Office of GIS, the Maine Department of Transportation, and the Maine Drinking Water Program, about additions and changes to technical specifications to eliminate any unnecessary duplication and minimize any resulting burden on utilities. After such consultation, to ensure that no major burden may arise from our delegation, we require that the Director give a 30-day notice to utilities before a new or changed specification will take effect, and provide utilities that believe such an addition or change would impose an unusual burden an opportunity to provide comments to the Director on the proposal.

Regarding BHE's suggestion that we permit electronic filing of information, we have recently undertaken a pilot project on electronic filing of materials with the Commission. We will allow such electronic filing when we can implement all

appropriate protections and assurances that such filing methods require, and will implement that process through a change in the specifications issued by the Director of Technical Analysis.

The Proposed Rule and attached preliminary technical specifications use scale references to describe the accuracy of data to be reported. MNG suggests we define accuracy in terms of tolerance rather than scale. NU suggested the scale of 1:24,000 is inadequate to depict its infrastructure accurately, and stated it uses scales of 1:40 and 1:50 for accurate location purposes. We note that some entities filing comments occasionally confuse the concepts of accuracy and scale. For the purposes of this Rule, we consider "accuracy" as related to the collection of location data for key infrastructure on the ground, and "scale" as related to the depiction of such data on a map.

For most purposes, the Rule specifies that utilities provide maps with a scale of 1:24,000, and that they use base data at the same scale. Scale is a description of the magnification of the map, and a ratio scale of 1:24,000 provides information where one inch on the map represents 2,000 feet on the ground. For 1:24,000 scale maps, national standards[3] require that not more than 10 percent of points tested shall be in error by more than 1/50 inch, which at this scale is an actual ground distance of 40 feet (12.2 meters). As the map scale increases, the size of all objects on the map increases. Utilities reporting information on the location of their facilities at a scale of 1:24,000 should report the location of key infrastructure within a minimum accuracy of ±40 feet. We encourage utilities to recognize trends toward greater accuracy over time, and to plan their data acquisition accordingly.

Sewell testified that to address different utility operating requirements, the Commission should allow utilities to provide more accurate data than standards set in the Rule. We do not wish to foreclose utilities that have more sophisticated capabilities from furnishing information with a greater degree of accuracy than that specified in the Rule. We believe most utilities will likely have located their infrastructure with greater accuracy, as NU suggested, and encourage utilities to incorporate the most accurate information possible in their filings with the Commission. We thus change the Rule to specify accuracy in terms of "at least as accurate as…" where such standards are stated (e.g., §§ 1(C) and 1(D).

The base map is normally a significant cost of implementing GIS. We specify infrastructure base maps that comply with national map standards at a scale of 1:24,000 because they are available statewide through the Maine Office of GIS at no cost. We consider the accuracy of ±40 feet appropriate for depicting the relationship of required facilities with their surrounding infrastructure for most utilities. The accuracy required to depict the necessary detail for gas utilities for safety purposes, however, is

[3] United States National Map Accuracy Standards, U.S. Bureau of the Budget, last revised June 17, 1947.

one inch equals 1,000 feet, except in congested areas where the operator may choose to employ greater accuracy (e.g., 1" = 200').

4. Confidentiality of Infrastructure Information

A number of entities commented on concerns about confidentiality of infrastructure information to be filed pursuant to the Proposed Rule, which stated that "Infrastructure maps for which a Commission protective order has not been issued will be made publicly available." AWD, PWD, MWUA, and TAM testified to these concerns, and Bangor Gas proposed that infrastructure information be presumptively deemed confidential. MNG raised a concern about keeping service tap information confidential "due to the competitive nature of the gas industry" and expressed additional concerns about terrorism. TAM expanded its concern to service area information as well through its suggestion that all filed information should presumptively be considered confidential unless and until the Commission finds that specific information can be publicly released. BHE stated that "infrastructure maps should be considered confidential because of terrorism." MWUA expressed concern about "making water utility infrastructure data publicly available," pointing to Section 2(1) of the Proposed Rule.[4] MWUA commented that it has continuing concern about "the potential for access to sensitive infrastructure information." Verizon expressed "strong concerns" about public disclosure of infrastructure information, including TSP and TESP circuits, SS-7 network information, E-9-1-1 PSAP locations, and IXC Points of Presence (POPs) that it describes as "customer proprietary information."

In light of the national tragedy that occurred on September 11, 2001, we are acutely sensitive to potential security issues related to utility infrastructure. We recognize that security of such infrastructure could in some circumstances be compromised through a completely unrestricted release of comprehensive utility infrastructure information, particularly in circumstances where the aggregation of information by the Commission could increase the security risk. Further, while public sources may reflect the location of some utility infrastructure, in most cases it does not contain the detailed attributes of that infrastructure that our Rule requires.

We can treat as confidential specific information that could compromise the security of a public utility to the detriment of the public interest if released to the public. 35-A M.R.S.A. § 1311-B. We also recognize that certain information such as the capacity and engineering details about certain lines could constitute confidential business information for which a protective order may be appropriate under 35-A M.R.S.A. § 1311-A.

In view of recent events, we find that an abundance of caution is prudent. Section 1311-B requires, however, that our determination about the

[4] The provision referred to by MWUA addresses the public availability of service area maps, not infrastructure information to which different public availability determinations apply.

confidentiality of information pursuant to that statute address "specific information about public utility technical operations in the State." At this time, we are not sufficiently familiar with the information in question to make that determination with any reasonable degree of specificity as required by the statute. Therefore, we have included in § 3(E) of the Rule a provision to allow all filings of infrastructure information with the Commission to be treated initially as "confidential" pursuant to § 1311-B. After the documents and related information are filed, we will determine (pursuant to appropriate process) what information should continue to be treated as confidential under § 1311-B. Utilities should accompany their initial filings of infrastructure information with a statement concerning any information the utility believes should be subject to protective order under § 1311-A, or should be protected for security reasons pursuant to § 1311-B, and which information can be made publicly available on request.

For filed information be protected from release, § 3(E) of the Rule requires that all utilities filing confidential infrastructure maps and data must plainly designate it "CONFIDENTIAL MATERIAL PURSUANT TO MPUC RULES, CH. 140" in a filing cover letter, clearly marked on all paper copy maps and other information sheets filed, and on electronic media labels. Upon filing any confidential material in electronic form, the utility filing such information shall provide a separate list of each filename included in the filing that the utility considers confidential.

As provided in 35-A M.R.S.A. § 1311-B(1), the Commission may on its own motion determine that specific utility information is confidential for security reasons. If a utility files information that it believes can be publicly released, but the Commission determines that it is confidential pursuant to that statute, the Commission will issue a confidentiality order and mark the affected information accordingly.

We note that much information about the location of utility infrastructure, both aerial and underground, is already publicly available from national or regional sources.[5] More detailed infrastructure information is regularly introduced in

[5] Utility infrastructure information has been publicly available in numerous sources such as USGS topographic maps, system diagrams produced by the North American Electric Reliability Council and Independent System Operator – New England, Inc., and the federal Energy Information Agency EIAGIS-NG gas pipeline GIS system. E-9-1-1 control tandem and PSAP locations, a Verizon confidentiality concern, are already public information, currently available on the E-9-1-1 web site maintained by the Emergency Services Communications Bureau of the Department of Public Safety. The locations of public water supply intake structures and wells are available to the public on an internet mapping system site maintained by the Maine Drinking Water Program. The U.S. Department of Transportation Office of Pipeline Safety (OPS) has issued rules for the development of a GIS-based National Pipeline Mapping System that will depict the location of all interstate gas transmission lines, readily available to the public. In addition, OPS is developing proposed "Community Right to Know" regulations that may require disclosure of the location of all gas lines.

Commission proceedings without protection.[6] As a result, some of the utility infrastructure that Bangor Gas and TAM suggest we declare presumptively confidential is already public information. It is not our intent to protect non-confidential information previously filed with or made available to the Commission. Any such data or information now or previously on file at the Commission for which a utility did not obtain a Protective Order to cover that information at the time the information was provided to the Commission will continue to remain publicly available. Further, if the Commission in the future legally obtains information about utility infrastructure from public sources, or such information is filed with the Commission absent a Commission Protective Order, we will not consider publicly available information confidential even if similar or identical information has been filed with the Commission pursuant to confidentiality provisions of this Rule.

An important role of the Commission is to make available to the public non-confidential information about public utilities operating in this State, and we do not wish to see the protection provisions of this Rule undermine that role. To enable the Commission to share non-confidential information with others, we maintain the provision of the Proposed Rule that requires utilities filing infrastructure information to provide redacted versions that reflect such information that the utility believes can be publicly released without compromise to the security of its facilities. The Rule in § 3(E) accordingly requires utilities to include with all confidential infrastructure filings a non-confidential version that redacts confidential information and data and shows only non-confidential information. Such non-confidential versions shall be clearly marked as REDACTED. The Commission may release the redacted information to the public on request.

Verizon's concerns about potential public disclosure of its infrastructure information were "not diminished by the proposed availability of confidential treatment by the Commission via a protective order," which it stated "cannot serve to prevent unauthorized public disclosure." Verizon suggested that provision of sensitive information in electronic form creates risk of release "through unauthorized access to the Commission's computer systems, or the computer systems of any of the various state agencies or law enforcement agencies that the Commission elects to receive such data." We are aware of the potential vulnerabilities that Verizon identified, and are taking appropriate measures. For example, as discussed in Part IV(A)(3) above, we will not permit electronic filing of confidential materials with the Commission until we implement all appropriate protections of those materials.

With respect to the Commission's sharing of confidential information with other agencies, 35-A M.R.S.A. § 1311-B provides for the protection of

[6] For example, during a public Technical Conference conducted on the record at the Commission on July 30, 2001 in Docket No. 2000-943 related to customers' service quality complaints, CMP presented and explained detailed distribution maps of part of its service area that identify, inter alia, the locations of system substations, three-phase and single-phase lines, and circuit reclosers throughout the area in question.

such information that may be necessary to support emergency preparedness or response, law enforcement, or other public health and safety activities. We are coordinating with other agencies to ensure appropriate protective measures are in place in those circumstances as well.

CMP separately raised the issue of potential liability that may occur as a result of the operation of the Rule and suggested we adopt a liability limitation. CMP stated that it "can envision circumstances in which other parties could use such information in an improper manner and that its "main concern is potential liability to third parties who use utility infrastructure data after it is provided to the Commission." CMP provided an example of a person who might wish to locate a facility in a particular location who might misinterpret information that a utility had provided to the Commission or who should be in possession of additional information before relying on the filed information. We decline to adopt a liability limitation. We doubt that the Commission has such authority and we believe such matters are better addressed by those agencies of government that normally determine liability in individual cases or as a matter of general policy – the courts and the Legislature.[7]

5. Statewide Application of Requirements

Some entities expressed concern about possible duplication of efforts. In their testimony, PWD and MWUA questioned possible duplication with requirements being formulated by the Department of Transportation (DoT) and the Department of Health Drinking Water Program (DWP). MWUA commented that the Proposed Rule does not address GIS activities at the Maine DoT and DWP. Although the Rule itself does not mention those agencies, our Staff was in contact with both of those agencies during the development of our proposed Rule to determine if any duplication of effort or inconsistency of standards exists. Those agencies informed the Staff that the proposed Rule was not inconsistent with the directions being taken by them. Both agencies were served with copies of our Notice of Rulemaking and Proposed Rule so that they could comment. We received no comments from either agency. PWD suggested that "the State should develop a comprehensive State plan for the mapping of infrastructure before imposing the specific mandate embodied" in the Proposed Rule, and that such an effort should include "all appropriate departments within State government." MWUA endorsed the development of an Enterprise GIS as "of tremendous benefit to water utilities, state agencies and system customers," pointing out that rural communities that may have less redundancy and fewer resources should be included in such a system, and "strongly encourage[d] the Commission to allocate the resources necessary to pursue this course of action."

[7] In Maine, failure to comply with a statute or regulation is admissible evidence on the issue of liability, but is never conclusive, i.e., it does not constitute negligence per se. *Russell v. Accurate Abatement, Inc., 694 A2d 921 (Me. 1997). Binette v. Dyer Library Association, 688 A.2d 898 (Me. 1996).*

That statewide system is being developed, although it is not yet in place and may not be for a number of years. On May 16, 2001, Governor King approved a Legislative Resolve that establishes a steering committee "to study and design a cost-effective statewide geographic system . . . that can be utilized for a variety of planning purposes by all levels of government." Resolve, to Assist Municipalities in Developing and Using Geographic Information Systems to Track Development and Promote Smart Growth, Resolves 2001, ch. 23. The Commission has coordinated closely on GIS matters with the State GIS Executive Council and its Technical Committee, and supported the legislation that led to the Resolve. Our Administrative Director, a member of the GIS Executive Council, has been named to the new 13-member steering committee established by the Resolve.

We intend to harmonize our GIS policies with those being developed for a statewide system. We cannot, however, put Commission map and GIS policies on hold pending development of a statewide system. We have an immediate and ongoing need to understand where utility infrastructure is located and how it supports the provision of safe and adequate services. That need is even more acute in areas where industry restructuring, competitive entry, and evolving technical standards (such as the Safe Drinking Water Act) may affect the infrastructure that utilities use to provide those services. We have developed GIS applications that enable electric and telephone utilities and their customers to identify utility service areas and competitive electricity providers that are licensed in different areas of the state. We have used GIS to evaluate the extent of outages during the Ice Storm of 1998, and note that some utilities have expanded their GIS capabilities after that event to improve their ability to identify, locate, and respond promptly to service outages. GIS can assist our review of utilities' replacement of aging infrastructure, and utilities' inventory and management of that infrastructure. We have observed utilities' use of GIS to monitor and improve service quality and to enhance the effective management of capital improvement projects. We cannot justify delaying such benefits to Maine utilities and their customers until broad statewide applications are developed. Accordingly, we will proceed with our Rule that will enable us to fulfill our mandate, and will participate actively in statewide efforts to ensure that our policies evolve in parallel with statewide developments. One objective of the legislation that led to the Resolve is to assist agencies of municipal government to develop GIS capabilities. This assistance could be valuable to many of our consumer-owned utilities, including the small water utilities regulated by the Commission.

6. Costs and Benefits

A number of entities commented on their expected costs to comply with the requirements of the Proposed Rule. MPS estimated a cost of about $100,000, "representing mostly in-house labor." AWD testified about its problems in managing an ongoing five-year effort to develop a GIS capability and suggested that the benefits of GIS do not surpass its costs. BWD estimated the cost to implement "a full GIS system" at about $100,000, a cost that "could be absorbed over a three-year period" using depreciation funds. B&S Water commented that costs of developing a GIS capability

could exceed $15,000. MWUA commented that utilities could incur significant costs to comply with the Proposed Rule because most water systems presently "do not have the resources to readily meet those requirements." To address these concerns, we will extend the time for initial implementation of the Rule's filing requirements contained in §§ 2(G) and 3(F) to a significant degree in the case of our smaller water utilities. Such an extension will enable utilities either to develop in-house capabilities or to explore other available options (e.g., commercially-available resources) to comply with the Rule. As a number of utilities commented, a phase-in will allow many utilities to spread related costs over a number of years and thus avoid or minimize any fiscal effects on ratepayers.

We believe a phased implementation of GIS mapping, particularly for small water utilities, will address these utility concerns. GIS is likely to be an extra cost for many utilities until the mapping records of the utility are fully converted, but we would expect some offsetting savings thereafter. The Enterprise GIS project may be able to provide the necessary software and training to all, or at least to smaller, consumer-owned water utilities. MWUA suggested that the smaller water utilities would benefit from GIS mapping as much as the larger utilities, in that "it is often the rural communities that suffer the brunt of damage when problems occur … ." A schedule for a phased application of these mapping requirements to all utilities regardless of size will put those utilities on notice and permit them to select an approach that will minimize their cost.

Bangor Gas commented that including service taps as key infrastructure would pose "a substantive fiscal burden." Using base data such as that available from MEGIS, service taps can be shown by street address, information that should already be available to utilities. NU testified that it sees no incremental benefits to its shareholders or ratepayers, and that its current hand-drawn paper map and index card filing system is sufficient to meet its needs, although in written comments it acknowledged that some "older records do not contain detailed information on the service location." NU estimated in its testimony that a conversion to a complete Automated Mapping / Facilities Management (AM/FM) system would cost NU in excess of $1.5 million. NU further commented that the Proposed Rule would place it at a competitive disadvantage because its newer competitors have a smaller volume of customer records to bring into compliance. We do not intend to require that utilities develop comprehensive in-house GIS capabilities, although in many cases we believe such capabilities would improve the efficiency of utilities' operations and management. We understand that some utilities have developed extensive GIS-based systems, including Automated Mapping / Facilities Management / Geographic Information Systems (AM/FM/GIS) that provide comprehensive database and technical facilities management capabilities. We have not contemplated nor addressed such advanced and integrated systems as AM/FM/GIS packages in the Rule.

NU commented that "due to the high degree of accuracy experienced when locating its facilities, . . . a cost/benefit analysis would be inappropriate." This comment fails to recognize that the Rule does not require a utility

to resurvey the location of any facilities or to improve the currently recorded location of facilities. To comply with the Rule, however, certain gas utilities will need to improve their record keeping and storage methodology and media used to track infrastructure data. The mapping requirements of this Rule intend to provide an overview of the key facilities in the distribution system. Each company should continue to maintain detailed engineering drawings and alignments sheets to adequately operate and maintain their systems.

Further, in written comments NU estimated that implementation of this Rule will cost approximately $500,000. This is a revision of NU's testimony that its cost would exceed $1.5 million.[8] In either case, NU stated it would be placed at a competitive disadvantage because the other gas utilities have a smaller number of customer records. NU did not acknowledge the economies of scale that it enjoys over its competitors because of the significantly larger number of customers it has when compared to the newer entrants or that its cost per customer might be similar to that of other utilities.

TAM stated that its member companies believe the costs of converting their information to electronic form "would not be insignificant in most instances" and suggests some utilities could incur costs "which could lead to rate cases." As described below, in §§ 2(G) and 3(F) of the Rule we are relaxing the initial implementation date for filing of service area and infrastructure information by incumbent local exchange carriers from the originally-proposed deadline of December 31, 2001 to April 1, 2002 for service areas and transmission infrastructure, and to April 1, 2004 for distribution infrastructure, and will accept such information in alternative formats (e.g., georeferenced AutoCAD) as well as GIS format. Further, if a utility believes that a burden will nevertheless arise due to special circumstances pertaining to that utility, § 4 of the Rule allows us to waive specific requirements of the Rule for good cause shown. Accordingly, we believe these modifications will allow TAM's members to comply with the Rule without triggering a cost burden that could justify rate relief for those utilities.

Verizon questioned our need for this information and suggests that it would require "significant work efforts," although Verizon did not conduct a cost-benefit analysis of those efforts. Verizon commented that it maintains its infrastructure information "in multiple formats [and] in multiple information systems," and compiling that information into a single source in map form would be a "massive undertaking" that "may not be justified," although possibly desirable "in the long-run." We are concerned that Verizon's inability to compile information on narrowly-determined elements of its network from multiple sources may compromise Verizon's ability to manage its network

[8] NU appears to have based its $1.5M estimate on the assumption that it would recreate base map data rather than use currently-available base maps, and would create a completely new enterprise AM/FM/GIS system for that firm. While such a system could benefit NU's technical management, such advanced systems are not required by the Rule.

efficiently. We have independently recognized that this constraint complicates our own ability to obtain timely accurate information about Verizon's systems. We note that Verizon acknowledges that such a compilation could be beneficial "in the long-run," and believe that Verizon should begin that process now. As described below, we are relaxing the schedule under which this information must be reported, which should allow Verizon and other utilities to modify their systems as needed to comply with the Rule.

The Proposed Rule requires that service area boundary maps include municipal boundaries and geographic features "that will aid in determining the location of the boundaries." During the hearing on the Proposed Rule, we asked commenters to address their costs considering the availability of State base map data at no cost. NU estimated a cost of $500,000 based on a draftsman's efforts to draft "approximately 350 to 400 feet of main per hour." PWD commented that such base data information "is redundant with thematic information already available from Maine OGIS." We proposed that utilities use State base data for reference precisely because it is readily availability from the State at no cost, and we do not expect utilities to recreate that data and thus incur unnecessary costs. Utilities should not incur any significant costs for reinventing existing and consistent base data that is already available from State resources without cost.

We note that numerous comments focused on anticipated costs of complying with the Rule, but most entities filing comments were silent on potential benefits. As we discussed above, we believe that the capabilities that utilities may develop as a result of this Rule, whether in-house or through third parties, will enhance their ability to manage the delivery of services and the operation and maintenance of their facilities, and facilitate improvement of services to consumers, although we cannot now quantify those benefits. In the long term, we believe those benefits to utilities and their ratepayers, such as those discussed in Part IV(A)(5) above, will outweigh the costs.

We do not expect that this Rule will result in a rate effect for any utility. If a utility believes that its costs to provide the information required by this Rule will significantly exceed those benefits for an extended period, and that they may result in such a rate effect, the utility should seek a waiver of the specific requirements of the Rule that the utility believes would cause the rate effect, pursuant to § 4 of the Rule. Any utility seeking such a waiver should identify which specific requirements can be met without rate effect and those that it believes would result in a rate effect. The utility should estimate that rate effect to the extent practicable with its request for a waiver.

7. Implementation Schedule

The Proposed Rule stated that utilities required by the Rule to file service area maps would need to do so by September 30, 2001, that gas utilities would file infrastructure maps by that same date, and that all other utilities would file infrastructure information by December 31, 2001. NU suggested that the implementation schedule should be suspended until it can determine how it will recover

implementation costs. Bangor Gas, BWD, MNG, MWUA, and SWD suggested that the initial filing schedule should be relaxed. B&S Water requested an implementation phase-in of at least six months for service area maps, and one year for infrastructure maps. CST stated it could meet the requirements of the Proposed Rule for paper maps, but stated it would expect to request waivers of the requirement to provide electronic copy maps "until it acquires the capability." NU commented that "conversion of its facility maps to GIS … would likely be a project of 2-3 years duration." MWUA suggested that annual service area maps be required "starting April 1, 2002." Bangor Gas further questioned the applicability of the Proposed Rule's infrastructure requirements to gas utilities three months before that requirement applies to other utilities. BWD suggested "a more reasonable time frame" of December 31, 2004 for it to implement a full GIS system in-house to support its compliance with the Proposed Rule.

We have considered the numerous suggestions that we delay initial implementation of the filing requirements of the Proposed Rule. In finding an alternative we considered specific comments made about utility capabilities and projections, and have delayed and extended the implementation schedule accordingly. The Rule in §§ 2(G) and 3(F) requires utilities to file information an annually beginning at different dates. The Rule incorporates an initial filing requirement for utilities in five phases. To address comments that developing key infrastructure information and distribution infrastructure data for map purposes is more complex than for transmission infrastructure, we apply different initial implementation dates for the annual filings of service area, transmission infrastructure, and distribution infrastructure maps and related data, in five phases:

- PHASE I applies to investor-owned (IOU) T&D utilities, all ILECs and IXCs, all gas utilities, and water utilities serving over 5,000 customer accounts;
- PHASE II applies to consumer-owned (COU) T&D utilities, CLECs that are ETCs, and water utilities serving over 3,000 customer accounts but not included in Phase I;
- PHASE III applies to water utilities serving over 1,000 customer accounts but not included in Phase II;
- PHASE IV applies to water utilities serving over 250 customer accounts but not included in Phase III; and
- PHASE V applies to water utilities serving 250 or fewer customer accounts.

The number of a water utility's customer accounts for the purposes of this provision will be the number of active customer accounts as of December 31 of the calendar year prior to the date on which a filing is required. Any utility that believes this requirement would pose an unreasonable burden should request a waiver pursuant to § 4 of the Rule.

The initial implementation dates for annual filings pursuant to the five phases discussed above are shown in the following table:

PHASE	UTILITIES AFFECTED	SERVICE AREA MAPS	INFRASTRUCTURE TRANSMISSION MAPS	INFRASTRUCTURE DISTRIBUTION MAPS & KEY INFRASTRUCTURE ATTRIBUTES
I	IOU T&D, ILEC, IXC, gas, water>5,000 accts	7/1/02 (except IXCs, which are exempt)	7/1/02	4/1/04 (7/1/02 for gas utilities)
II	COU T&D, CLEC(ETC), water>3,000 accts	4/1/04 (except CLECs whose area is identical with an underlying ILEC)	4/1/06 (except T&D utilities serving only on offshore islands, which are exempt)	4/1/09 (except T&D utilities serving only on offshore islands, which are exempt)
III	water>1,000 accts	4/1/07	4/1/09	4/1/12
IV	water>250 accts	4/1/10	4/1/12	4/1/15
V	water <= 250 accts	4/1/13	4/1/15	4/1/18

If circumstances prevent a utility from meeting the amended implementation schedule above, Section 4 of the Rule provides a waiver process whereby a utility may petition for an extension in time to meet the revised filing requirements, for good cause shown.

Particularly with the gradual nature of the phase-in outlined above, some utilities may need to make significant infrastructure improvements before the applicable initial implementation date set in the above table. We have established this phase-in approach so that utilities will have a reasonable opportunity to collect and report data about their existing infrastructure. We believe it appropriate to apply the requirements of this Rule to utilities making major new infrastructure investments before the phase-in dates established above for existing infrastructure. Thus, notwithstanding the dates in the above table, we require in § 3(H) each utility subject to this Rule that conducts any major construction project for improvement, replacement, or expansion, with a project infrastructure investment of more than $500,000 during any calendar year before the applicable initial implementation date above, to collect georeferenced data about that new or improved infrastructure, and provide that data to the Commission on April 1 of the following year, and each subsequent year thereafter.

Notwithstanding the initial implementation dates discussed above, utilities that currently have the information required by this Rule, or that develop such information prior to the applicable initial implementation dates, should provide that information as soon as it is available.

8. Paper Maps

The Proposed Rule requires utilities to file both service area and infrastructure maps in paper copy form, and in addition in electronic (GIS) form unless waived in advance by the Director of Technical Analysis. BHE commented that a paper map filing requirement "is redundant since electronic maps are provided." PWD commented that the requirement to file paper maps is inconsistent with a GIS, and that providing highly-detailed information on its distribution system in paper form would be burdensome and "counter-intuitive to what a GIS is all about."

We recognize that the utilities filing these comments (BHE and PWD) may have a GIS in place, and we commend those utilities for their efforts. Many other utilities have not yet developed that capability, however, making it important for the Commission to receive information in forms that enable comparison between utilities and utility sectors. We thus will require in §§ 2(F) and 3(C) paper copy maps and data as proposed.

With respect to PWD's apparent conclusion that the Proposed Rule requires water utilities to provide certain highly-detailed data on their distribution infrastructure, the Rule does not require water utilities to provide such details as individual consumer services and street addresses.

9. Accuracy of Data

CMP suggested the Rule incorporate provisions dealing with liability "related to the inaccuracy of any information" required by the Rule. It is very important that utilities provide accurate data, and we have reflected that principle in the Rule. Section 1(F) of the Rule states that utilities must collect, create, and maintain reasonably accurate data, and must correct known errors in that data on file with the Commission. A utility's failure to provide such information to the Commission, and potentially to public safety agencies through the Commission, could jeopardize the public health and safety. As described above, we decline to adopt a liability limitation as CMP requested.

B. Section 2: Service Area, Exchange, and Wire Center Boundary Maps

1. Purpose

Our Notice of Rulemaking stated that one of our reasons for issuing the Proposed Rule is "to respond to the most frequent requests for service area information received by the Commission." TAM questioned the need for additional requirements to respond to such questions. Verizon commented that service area maps "represent the most logical means" to convey service information boundary information, and while Verizon stated it does not yet have digital mapping capabilities, it "envisions" that migrating to a digital format "makes operational sense."

Incumbent Local Exchange Carriers (ILECs) for many years have filed exchange boundary maps delineating the extent of their service areas as part of their official schedules of terms and conditions of service. Some smaller ILECs have not regularly maintained those maps, resulting on occasion in the Commission's official records being inconsistent, incomplete, or in conflict with other ILEC maps and Commission orders. In a pilot project a few years ago in which we arranged for MEGIS to digitize ILEC maps, we recognized the clear advantage of having digital format maps for comparison purposes. That pilot project only identified gross errors in these utility-filed maps, however. ILECs must continue to correct and update those maps to ensure they are consistent with Commission orders and Rules and the filings of abutting ILECs. We concur with Verizon's conclusion that moving to a digital map format "makes operational sense," and believe the time for such movement is overdue. We therefore will require service area map filings as we proposed, subject to phase-in provisions discussed above.

2. Content of Maps

The Proposed Rule requires utilities to develop and maintain current service area maps of the areas in which they are authorized to serve. Both in hearing testimony and in filed comments, MNG suggested that maps for gas utilities should reflect areas actually served in lieu of areas where service is authorized. Several utilities have broad authority to serve, but do not have facilities in place in large portions of their authorized service areas that would enable them to actually provide service. While we agree with MNG that areas actually served are relevant not only to our own analyses but also to respond to public inquiries about the current availability of service, we also wish to monitor areas where individual utilities have authority to provide service. We accordingly will retain the requirement for utilities to file maps of their authorized service areas as proposed, and will add a requirement that service area maps identify the areas in which utilities can actually provide service as well as where they are authorized to serve. We expect that actual service areas will be determined based on the farthest extent to which a utility's distribution facilities extend, and accordingly will not require that utilities provide the areas in which they actually provide service until the date on which those utilities are required to file maps of their distribution infrastructure. Section 2(A) of the Rule reflects this requirement.

3. Scale

The Proposed Rule required utilities to provide service area boundary maps at a scale of 1:62,500. BWD commented that such a scale is inadequate "to distinguish the boundaries between utilities." MEGIS suggested that a scale of 1:24,000 would be more appropriate for uniformity with State standards and general utility practices. We agree that a scale of 1:24,000 is more appropriate than 1:62,500, and will provide the greater level of detail we occasionally require. Utilities that do not have GIS in place should, however, begin by basing their maps on a scale that will enable them to show all the information they could need. GIS enables us to

enlarge or reduce the map to depict the desired image. We adopt MEGIS's suggestion that we use 1:24,000 as a uniform standard for service area maps. We recognize, however, that some ILECs have for years filed exchange boundary maps at a scale of 1:62,500. We are allowing ILECs that have filed such maps with the Commission as part of their schedules of terms and conditions to certify their accuracy in lieu of filing new maps, and accordingly will grandfather ILEC 1:62,500 maps already on file that the filing utility certifies as accurate. If any changes to those maps need to be filed in the future, however, all future filings shall be made at a 1:24,000 scale.

4. Joint Filings

The Proposed Rule required a joint filing by all affected parties for a boundary change between two or more utilities. BWD questioned if this provision would require a utility to file such information if otherwise exempt from the requirements of the Rule "due to the number of its service connections." We assume that BWD is concerned about whether a utility must file a service area map prior to the date it must otherwise file one pursuant to the schedule in Section 2(G) of the Rule.

If a utility proposes to change its service area in conjunction with changes by another utility, both utilities must obtain approval by the Commission for those changes pursuant to 35-A M.R.S.A. §§ 2102, 2103, or 2104. The statutory requirement to obtain Commission approval for changes in service area is separate from the requirement in the Rule to file service area maps. The joint filing requirement when two or more utilities agree upon a change in a service area boundary between them does not mean that a utility is subject to the service are map requirement prior to the time it must do so under the Rule, and the final Rule makes this clear. All utilities involved in the agreed change must file for approval because the service area statutes require all of them to obtain approval; the Rule requires a joint filing so the existence of the agreement will be apparent to the Commission.

C. Section 3: Infrastructure Maps

1. Water Utilities

The Proposed Rule includes hydrants as elements of key infrastructure for water utilities. B&S Water comments that including hydrants and distribution mains requires a level of detail that would render legibility difficult. Utilities should select the scale of their base data based upon the most detailed information they may desire to reflect on those maps, as long as it is at least as accurate as the data reflected in 1:24,000 scale maps. The data should be entered in a manner that would enable selective display. For example, fire hydrant location, hydrant number, hydrant color, and available flow should be entered so that a user could display only the location, the location and available flow, or the location and color (based on flow).

MWUA commented that operating pressure is inappropriate as a key infrastructure attribute because it must be derived from a hydraulic model for individual pipe segments. We concur that it could be difficult for water utilities to provide actual operating pressures for pipe segments because dynamic operating pressures will vary with elevation and instantaneous flow. Although even static pressure will vary with elevation, we understand that static pressures can readily be determined at hydrants, and that those static pressures are often recorded by utilities. Accordingly, we amend the Rule at § 2(B)(3)(e) to require that water utilities provide static pressures instead of operating pressures as initially proposed.

2. Gas Utilities

The Notice of Rulemaking proposed to require gas utilities to provide infrastructure maps of their transmission and distribution infrastructure. Bangor Gas questioned whether the key infrastructure identified in the Proposed Rule is consistent with federal safety standards for transportation of natural and other gas by pipeline, contained in 49 CFR Part 192. Bangor Gas also asked for a clarification as to whether inactive service taps are included in that definition. MNG commented that including service taps on infrastructure maps would provide "too much detail" and possibly encourage circumvention of Dig Safe laws. MNG suggested that we exempt from the Rule all gas mains smaller than four inches in diameter and service taps. NU testified that including mains and service taps is unnecessary. NU commented that it does not show distribution service taps on its current system maps.

We will likely be updating Chapter 420, Safety of Gas Transmission and Distribution Systems, the Rule that addresses the safety of gas facilities within our jurisdiction. That revision might include a requirement for gas utilities to document key infrastructure in a GIS base for the purpose of improving operational safety. Because Chapter 140 would also require gas utilities to provide similar infrastructure maps, we will combine the basic safety mapping requirements with the requirements of this Rule. Thus, the definition of key infrastructure for gas utilities is more inclusive than for the other utilities.

In response to the Bangor Gas comment, key valves or "critical valves" are considered to be those valves necessary to isolate sections of the gas piping system expeditiously and safely while minimizing any disruption of service to customers. At a minimum, those valves would be the ones for which annual safety inspections are required pursuant to federal rules in 49 CFR 192.745 and 192.747. We amend the Rule in § 1(B)(2)(b) to reflect this standard.

All service taps are considered active until they are removed because they will continue to be pressurized up to the first valve downstream of the tap even if the service line is inactive. MNG's request to exempt mains smaller than four inches along with service taps would defeat the purpose of enhancing the safe operation of the system, and we reject its suggestion. The gas system operator would not have adequate information available to respond to emergency situations. We believe that a utility's reliance on manual correlation of paper system maps and service

cards, as advocated by NU, to identify emergency response alternatives while a gas emergency is in process, is likely to impair public safety. Therefore, we will not grant the exceptions sought by NU and MNG.

3. Telephone Utilities

The Proposed Rule would apply to competitive local exchange carriers (CLECs) that the Commission designates as Eligible Telecommunications Carriers (ETCs) pursuant to 47 U.S.C. § 214(e), and to interexchange carriers (IXCs) with facilities in Maine. CTC opposed the application of the Proposed Rule to "smaller carriers," and proposed that we exempt IXCs with less than a 10% market share based on presubscribed customer accounts. We do not routinely track market share of IXCs operating in Maine, data that would be highly dynamic depending on market conditions. To provide the exemption that CTC proposes, we would need to establish a process for regular review of IXC market share, with commensurate public disclosure of IXCs that fell above or beneath the 10% threshold level. We believe that regular public disclosure of IXC market share data would adversely affect the competitive nature of that market and create an unnecessary burden on the Commission. We thus reject CTC's suggestion.

While urging us to exempt "smaller carriers," CTC described itself as a CLEC and IXC with operations extending "throughout the Northeast and Mid-Atlantic states" serving "predominantly medium to large business customers." We note that CTC's self-characterization would make it considerably larger than most of Maine's 23 incumbent local exchange carriers to which this Rule will apply. Our obligation to monitor the safety and quality of the essential services provided to consumers in the state is not a function of the size of the carrier providing those services. Further, our obligations include the safety and quality of services provided to all consumers regardless of size. CLECs that are not designated ETCs, and IXCs that do not have facilities in this State, are automatically exempt from this Rule. We will thus not exempt "smaller carriers" that have made investments to support their entry as ETCs, or to support facilities-based IXC services, by virtue of those carriers' size.

Verizon commented that "obtaining V&H coordinates on [interoffice facilities] is . . . problematic." The Rule requires such information only "if assigned," and we have clarified that language to address Verizon's concern. We do not expect utilities to create such coordinates solely for the purposes of this Rule for a facility that does not have such characteristics already assigned. Verizon suggested that its Maine network includes "well over 2000" digital line carrier systems, and that the number is growing constantly, making it difficult to keep that information current. As we discuss in Part IV(C)(6) below, we are relaxing the frequency of infrastructure updates required by the Rule, which should reduce the burden claimed by Verizon.

Verizon sought clarification on information to be provided on SONET nodes, and outlined two possible interpretations. By "nodes" we mean the

locations where SONET traffic can be re-directed; we do not seek specific end user customer locations.

4. T&D Utilities

In the Notice of Rulemaking, we proposed that T&D utilities provide infrastructure maps of their transmission infrastructure. We requested comment on whether this requirement should be extended to include T&D distribution circuits or if we should delay this extension for a specified period of time. BHE stated that the manual entry of metadata required for "constant changes" in its distribution system would be a burden. CMP suggested that we exclude primary distribution circuits as "unnecessary" and probably "unproductive." MPS suggested that we initially require mapping only of T&D utility transmission systems and delay mapping of primary distribution circuits "until the transmission system has been completed to everyone's satisfaction," a process that MPS anticipated will take two or three years.

We are sympathetic with BHE's concern that reporting "constant changes" in distribution systems may be a burden to some utilities, and address that burden by relaxing the proposed quarterly filing requirements, as described in Part IV(C)(6) below. CMP is incorrect that we have no interest in primary distribution circuits. Our interest in these circuits is reflected in the requirement of the present Alternative Rate Plan for CMP that it file annual reports with the Commission of its worst-performing circuits and any improvements made to those circuits. *Central Maine Power Company, Request for Approval of Alternative Rate Plan (Post-Merger) "ARP2000"*, Docket No. 99-666, Order Approving Stipulation (Nov. 16, 2000), Stipulation at 11-12. We agree with MPS's suggestion that we initially require T&D transmission system information and then expand that requirement to encompass primary local distribution circuits at a later time, as specified in Section 3(F) of the Rule.

We are encouraged that all three investor-owned T&D utilities that have the largest distribution systems in the State also have initiated GIS programs, a course that should enable them to move toward compliance with this Rule fairly easily. We accordingly revise the Proposed Rule to require investor-owned utilities to provide annual transmission system infrastructure information beginning in 2002, and to require consumer-owned utilities subject to the Rule to provide that information annually beginning in 2006. Thereafter, T&D utilities will provide local distribution system infrastructure information annually beginning at the times specified in Part IV(A)(7) above. Section 3(F) of the Rule reflects these changes.

5. Format

The Proposed Rule allows a utility that does not possess or have access to geographically-located data on certain infrastructure lines to "file a map that shows the lines between its geographically-located midpoints and endpoints as representational point-to-point lines." BWD questioned if this allows utilities to submit "Autocad type drawings in lieu of GIS maps," stating that it has such a capability. The

interim specifications attached to the Proposed Rule allow utilities to file .dxf interchange files. We understand that AutoCAD software can generate and export .dxf interchange files that are created on a georeferenced base, and thus, such files would satisfy this requirement.

6. Filing Interval and Date

The Notice of Rulemaking solicited comment on whether a quarterly filing requirement in the Proposed Rule should be modified to require either more frequent or less frequent filings, or whether filings should be based on a triggering event of some sort. CMP supported the proposed quarterly filing requirement, and suggested that use of triggering mechanisms could pose unnecessary burdens. MPS suggested that, after an initial filing, additional filings be required only "when circuits are added, removed or upgraded to the threshold level." BHE and numerous other commenters suggested that an annual filing would be more appropriate than quarterly. AWD, PWD, and MNG testified that a year-end filing would enable them to update information after the annual construction season. AWD testified that a mid-January filing date would address construction seasons that might be extended into early December due to abnormally warm weather.

NU suggested a filing date "on or after January 31," as that would accommodate the seasonal nature of construction. Bangor Gas suggested February 1 of each year as a filing deadline, and B&S Water suggested annual updates at the end of the first quarter of each year, with more frequent updates provided to reflect significant changes. SWD suggested May as an appropriate filing time, while BWD referred to its "standard practice" of updating changes "during the winter months." CST supported annual filings supplemented by additional filings "whenever significant changes occur." TAM suggested annual filings "to the extent any filings are necessary." CTC suggested annual filings.

We concur with most commenters that quarterly filings would pose an unnecessary burden on many utilities. Instead, the Final Rule requires annual filings of infrastructure information. We recognize the seasonal nature of infrastructure construction in Maine, and note that the first calendar quarter of the year is most frequently mentioned by commenters as a reasonable filing date. Therefore, in § 3(F) of the Rule, after any initial filings required during the year 2002, we will require utilities to file infrastructure information on or before April 1 of each year to reflect their infrastructure that is in place as of December 31 of the preceding year. The initial implementation date table shown in Part IV(A)(7) above reflects this change.

V. ORDERING PARAGRAPHS

Accordingly, we

O R D E R

1. That the attached Chapter 140, Utility Service Area and Infrastructure Maps, is hereby adopted;

2. That the Administrative Director shall send copies of this Order and attached Rule to:

a. The Secretary of State for publication in accordance with 5 M.R.S.A. § 8053(5); and

b. The Executive Director of the Legislative Council (20 copies).

3. That the Administrative Director shall send notice that this Rule has been adopted to:

a. All gas utilities;

b. All electric transmission and distribution utilities;

c. All water utilities;

d. All local exchange carrier telephone utilities;

e. All interexchange carrier telephone utilities with facilities in Maine;

f. All persons who have filed a written request with the Commission within the last year for Notices of Rulemaking; and

g. All persons that have testified or filed comments in this proceeding.

Dated at Augusta, Maine, this 19th day of October, 2001.

BY ORDER OF THE COMMISSION

_____

Dennis L. Keschl
Administrative Director

COMMISSIONERS VOTING FOR: Welch
Nugent
Diamond

NOTICE OF RIGHTS TO REVIEW OR APPEAL

5 M.R.S.A. § 9061 requires the Public Utilities Commission to give each party to an adjudicatory proceeding written notice of the party's rights to review or appeal of its decision made at the conclusion of the adjudicatory proceeding. The methods of review or appeal of PUC decisions at the conclusion of an adjudicatory proceeding are as follows:

1. Reconsideration of the Commission's Order may be requested under Section 1004 of the Commission's Rules of Practice and Procedure (65-407 C.M.R.110) within 20 days of the date of the Order by filing a petition with the Commission stating the grounds upon which reconsideration is sought.

2. Appeal of a final decision of the Commission may be taken to the Law Court by filing, within 30 days of the date of the Order, a Notice of Appeal with the Administrative Director of the Commission, pursuant to 35-A M.R.S.A. § 1320(1)-(4) and the Maine Rules of Appellate Procedure.

3. Additional court review of constitutional issues or issues involving the justness or reasonableness of rates may be had by the filing of an appeal with the Law Court, pursuant to 35-A M.R.S.A. § 1320(5).

Note: The attachment of this Notice to a document does not indicate the Commission's view that the particular document may be subject to review or appeal. Similarly, the failure of the Commission to attach a copy of this Notice to a document does not indicate the Commission's view that the document is not subject to review or appeal.